

## Sedgwick County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

10/13/14

31 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Sedgwick County economy.<sup>1</sup>

These 31 sectors have a total direct output of approximately \$1755 million and support 4,861.0 jobs in Sedgwick County. Running the model for all 31 sectors simultaneously produces the following results:

Agriculture Contribution in Sedgwick Co						
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	4,861.0	2%	338,385,784.8	1%	1,755,132,169.6	7%
Indirect Effect	1,861.4	1%	190,023,312.0	1%	311,504,507.5	1%
Induced Effect	2,070.9	1%	161,913,213.8	1%	246,764,754.5	1%
Total Effect	8,793.4	3%	690,322,310.5	3%	2,313,401,431.5	9%

As shown in the above table, agriculture, food, and food processing supports 8,793.4 jobs, or 3% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$2313 million, roughly 9% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 31 agriculture, food, and food processing sectors is approximately \$690 million, or 3% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 3% of the total economy.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

[http://www.implan.com/index.php?option=com\\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70](http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

In the top ten by employment, Animal (except poultry) slaughtering, rendering, and processing is the top employer in the agriculture industry with 1,222.8 employees. This table also shows the amount of jobs that are created by the agriculture industry in Sedgwick County.

Description	Total Employment	Total Output
Animal (except poultry) slaughtering, rendering, and processing	1,222.8	457,885,508.0
Grain farming	942.8	52,216,366.2
Lawn and garden equipment manufacturing	798.8	351,938,100.9
Wholesale trade businesses	378.6	76,712,051.0
Food services and drinking places	331.2	21,652,415.2
Real estate establishments	260.9	35,684,225.5
Support activities for agriculture and forestry	260.2	6,837,874.1
Other industrial machinery manufacturing	238.4	101,697,603.0
Soft drink and ice manufacturing	217.4	165,244,689.8
Cattle ranching and farming	216.7	32,327,934.7

The Animal (except poultry) slaughtering, rendering, and processing industry directly contributes approximately \$458 million to Sedgwick County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Description	Total Employment	Total Output
Animal (except poultry) slaughtering, rendering, and processing	1,222.8	457,885,508.0
Lawn and garden equipment manufacturing	798.8	351,938,100.9
Flour milling and malt manufacturing	154.9	211,862,866.1
Soft drink and ice manufacturing	217.4	165,244,689.8
Fluid milk and butter manufacturing	119.7	145,609,136.3
Other industrial machinery manufacturing	238.4	101,697,603.0
Wholesale trade businesses	378.6	76,712,051.0
Dog and cat food manufacturing	47.0	60,799,236.9
Grain farming	942.8	52,216,366.2
Real estate establishments	260.9	35,684,225.5

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Sedgwick County's economy.

Description	Employment	Output
Oilseed farming	139.45	21,099,401.47
Grain farming	942.81	51,520,290.37
Vegetable and melon farming	0.96	493,922.56
Fruit farming	0.29	170,387.52
Tree nut farming	0.39	95,205.34
Greenhouse, nursery, and floriculture production	13.59	5,992,379.19
Cotton farming	1.94	642,598.63
All other crop farming	27.97	9,596,911.43
Cattle ranching and farming	216.68	31,896,158.22
Dairy cattle and milk production	83.99	15,992,501.26
Poultry and egg production	0.15	128,059.48
Animal production, except cattle and poultry and eggs	55.23	2,630,645.28
Support activities for agriculture and forestry	260.18	6,561,368.94
Dog and cat food manufacturing	46.97	59,880,573.27
Flour milling and malt manufacturing	154.92	211,734,375.00
Confectionery manufacturing from purchased chocolate	7.82	3,344,108.34
Fruit and vegetable canning, pickling, and drying	10.94	5,339,499.47
Fluid milk and butter manufacturing	119.72	141,333,602.91
Animal (except poultry) slaughtering, rendering, and processing	1,222.83	447,712,921.14
Poultry processing	1.43	589,276.31
Bread and bakery product manufacturing	122.93	23,998,300.55
Cookie, cracker, and pasta manufacturing	26.07	12,012,876.51
Tortilla manufacturing	3.48	789,654.67
Coffee and tea manufacturing	29.74	24,976,491.93
Seasoning and dressing manufacturing	23.68	14,603,577.61
All other food manufacturing	41.35	13,434,432.03
Soft drink and ice manufacturing	217.45	159,879,165.65
Narrow fabric mills and schiffli machine embroidery	44.07	5,696,273.80
Farm machinery and equipment manufacturing	6.73	3,858,485.22
Lawn and garden equipment manufacturing	798.81	338,480,987.55
Other industrial machinery manufacturing	238.44	97,226,921.08
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All 105 counties in Kansas have Implan models and agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.